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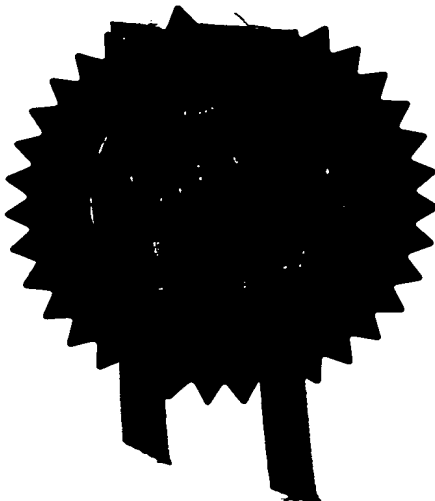
The Patent Office
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Newport
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NP10 8QQ

I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

In accordance with the Patents (Companies Re-registration) Rules 1982, if a company named in this certificate and any accompanying documents has re-registered under the Companies Act 1980 with the same name as that with which it was registered immediately before re-registration save for the substitution as, or inclusion as, the last part of the name of the words "public limited company" or their equivalents in Welsh, references to the name of the company in this certificate and any accompanying documents shall be treated as references to the name with which it is so re-registered.

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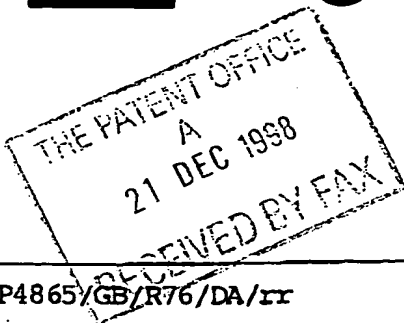
J. Evans

Dated **27 JAN 2000**

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Request for grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)



The Patent Office

Cardiff Road
Newport
Gwent NP9 1RH

1. Your reference F21560/98P4865/GB/R76/DA/rr

2. Patent application number
(The Patent Office will fill in this part)

9828101.7

3. Full name, address and postcode of the or of each applicant (underline all surnames)

ROKE MANOR RESEARCH LTD
OLD SALISBURY LANE
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BBWM LTD
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INGLEDEN PARK
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TENTERDEN, KENT TN30 6SL

07574916001

Patents ADP number (if you know it)

If the applicant is a corporate body, give the country/state of its incorporation

4. Title of the invention
ACOUSTIC MARKETING DEVICE

5. Name of your agent (if you have one)

DEREK ALLEN

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

SIEMENS GROUP SERVICES LIMITED
INTELLECTUAL PROPERTY DEPARTMENT
SIEMENS HOUSE, OLDBURY
BRACKNELL, BERKSHIRE, RG12 8FZ

Patents ADP number (if you know it)

02898443005

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application number
(if you know it)

Date of filing
(day / month / year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
(day / month / year)

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if:

YES

- a) any applicant named in part 3 is not an inventor, or
 - b) there is an inventor who is not named as an applicant, or
 - c) any named applicant is a corporate body.
- See note (d))

Patents Form 1/77

9. Enter the number of sheets for each of the following items you are filing in this form. Do not count copies of the same document

Continuation sheets of this form

Description

Claim(s)

Abstract

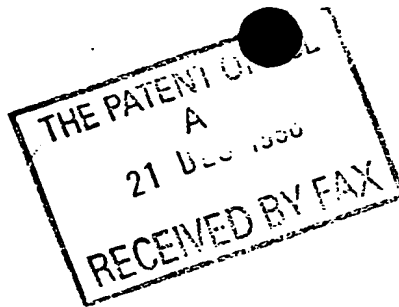
Drawing(s)

2

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1



10. If you are also filing any of the following, state how many against each item.

Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (Patents Form 7/77)

Request for preliminary examination and search (Patents Form 9/77)

Request for substantive examination (Patents Form 10/77)

Any other documents (please specify)

11.

I/We request the grant of a patent on the basis of this application.

Signature

Date 21 December 19

Derek Allen-Their Attorney

12. Name and daytime telephone number of person to contact in the United Kingdom

Derek Allen - 01344 396808

Warning

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Notes

- If you need help to fill in this form or you have any questions, please contact the Patent Office on 0645 500505.
- Write your answers in capital letters using black ink or you may type them.
- If there is not enough space for all the relevant details on any part of this form, please continue on a separate sheet of paper and write "see continuation sheet" in the relevant part(s). Any continuation sheet should be attached to this form.
- If you have answered 'Yes' Patents Form 7/77 will need to be filed.
- Once you have filled in the form you must remember to sign and date it.
- For details of the fee and ways to pay please contact the Patent Office.

Patents Form 1/77

ACOUSTICALLY ACTIVATED MARKETING DEVICE

The present invention relates to an acoustically activated marketing device. The consumer obtains the device from a retailer. He/she wears the badge while at the cinema or while listening to the radio or TV. When a specific advert is broadcast the badge interprets part of the sound-track and activates the display on the badge.

Masking by Other Sounds

When the advert is played, the consumer may be in an area of high noise, for example in the midst of conversation in a cinema or at home, or when driving in a car. This noise may mask the code signal and prevent the display from being activated. This should ideally not be greater than 1 non-activation out of 10 or 20 occasions.

Unintended Activation

While the consumer is wearing the badge, it will be subject to many different sources of noise, for example; conversation, music, car noise, etc. These could, by chance, contain a sequence of sounds that are sufficiently like the code to trigger the device. The probability of this type of 'false alarm' occurring can be reduced by increasing the complexity of the signal code, but this may be at the expense of battery life or badge cost. Less than 1 in 100 badges should be unintentionally activated during their lifetimes, with a maximum acceptable limited of 1 in 20.

Operating Lifetime

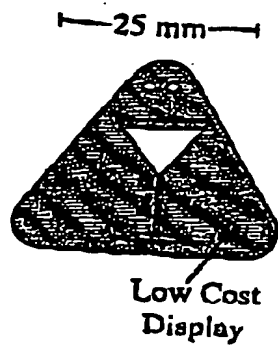
The required operating lifetime of the badge is expected to be application-dependent. Long operating lifetimes will require higher cost batteries or lower power circuits.

Cost Reduction

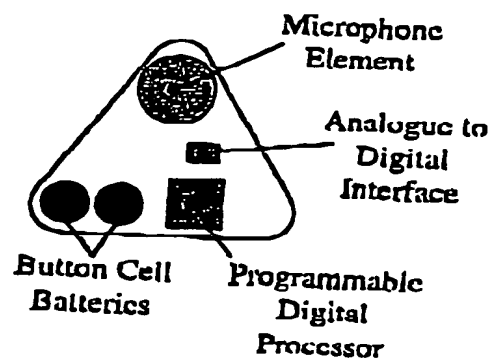
To minimise the production cost, the development of an integrated circuit specific to this application will be required. This will require low-cost packaging, for example the integrated circuit can be directly mounted on the printed circuit board and then protected from the atmosphere by a 'blob' of plastic. For this type of ASIC to be viable, large production runs will be necessary. The requirement for such runs will make it more difficult to adapt the IC to a different application. Some degree of programmability may be possible, however this may require the use of a more expensive production process.

Drawings

An example of a marketing device is shown in Fig. 1. The device comprises a low-cost display, a microphone, connected to an A/D interface, a programmable digital processor and a battery source.



Front View



Electronics Layout

Fig 1.

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Siemens Group Ltd

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